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FOOD NEWS

FOR CONSUMERS

Volume 7 Number 2

Summer 1990

U.S. Department of Agriculture
Food Safety and Inspection Service

**Protect Your
"Good Old Summertime" Food**



Commonsense Microwave Safety	HACCP Inspection for Meat and Poultry Plants	Summertime Food Care Myths
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FOOD NEWS

FOR CONSUMERS

Summer 1990
Vol. 7, No. 2

Food News for Consumers is published by USDA's Food Safety and Inspection Service, the agency charged with ensuring the safety, wholesomeness and proper labeling of the nation's meat and poultry supply. The magazine reports how FSIS acts to protect public safety, covering research findings and regulatory efforts important in understanding how the agency works and how consumers can protect themselves against foodborne illness.

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Information Disperses Doubt

A Message from FSIS's Assistant Administrator
Dr. Catherine E. Adams



Dr. Adams, who holds degrees in food science and nutrition, is uniquely qualified for her position as assistant administrator of USDA's Food Safety and Inspection Service, the agency that handles meat and poultry inspection and consumer education on food safety. She serves on the National Advisory Committee for Microbiological Criteria for Foods and is U.S. Delegate to the international Codex Committee for Food Hygiene.

Traveling as much as I do to make speeches, talk with our employees in the field, attend advisory committee meetings and discuss food safety issues at conferences, I am convinced we are entering a period where people want to know *more* rather than less about food and its production.

Today's consumers want to know how food items are handled from the farm to store shelf. They're concerned about how animals are raised, why certain substances are added to food in processing and what's happening in the fight against foodborne illness. At FSIS, we hear these questions daily on our Meat and Poultry Hotline.

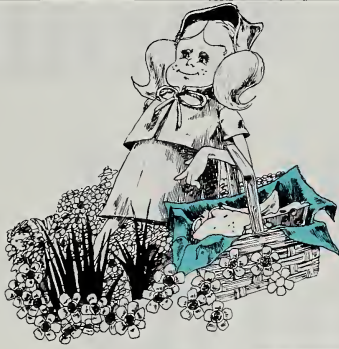
One area we know consumers want to know more about is meat and poultry inspection. The news here is that we're developing a new inspection program called the Hazard Analysis and Critical Control Points system—or HACCP. The HACCP approach identifies critical points in the manufacture of food where something could go wrong to make food unfit and sets up a mechanism to prevent problems. We plan to implement HACCP in meat and poultry inspection gradually over the next few years.

As executive director of this HACCP effort, I can report that we are *excited* about it. It employs the latest scientific tools for inspection. We can integrate new tests for microbiological contamination into HACCP control points as soon as the tests are validated. And HACCP already has an excellent track record. HACCP programs are now working well in some meat and poultry plants and in some restaurants.

HACCP is a win-win program—consumers win because of a better assurance of public health protection. Our workforce wins because the job of inspection will be better controlled, and meat and poultry producers win because they will have enhanced control over product safety and quality.

I hope you enjoy this issue of *Food News*, that you continue to ask us your food questions and that you agree that learning more can be the key to worrying less.

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The Truth About Hot Weather Food Myths

Little Red Riding Hood has carried her picnic basket through the thickets of popular imagination for some time. She's been around since 1697 when Charles Perrault, a French noble at the Court of Louis XIV, first published his *Tales of Mother Goose*.

Like all tales, the story has become entrenched through repetition.

Misinformation spreads the same way. So USDA's Meat and Poultry Hotline staff is standing in for the woodsmen to chop down some mischievous modern "tales" that can cause trouble in summertime food handling.

The trouble we're referring to is the possibility of bacterial foodborne illness—the menace represented here by the wolf.

Myth 1. It's summer—you can take a vacation, and relax your food safety principles!

Actually, reports of foodborne illness rise during the hazy, lazy days of summer, so you shouldn't relax when preparing food. But with a few precautions you can enjoy a safe picnic.

Be sure to keep all food preparation areas clean. Special care must be taken to ensure that food is kept cold, or hot enough to slow the growth of any bacteria present. And foods should be thoroughly cooked.

Myth 2. There are some foods you just can't take on a picnic.

If the time between leaving home and serving the picnic is under 2 hours, and you plan for proper cold or hot storage on the trip, you can take most any food on a picnic.

Perishable foods like meat and poultry need more care, of course, and highly perishable foods like cream pies or custards may be difficult to transport.

But with a good insulated cooler, and lots of ice or other cold sources, your picnic can safely include such foods as potato salad, deviled eggs or cream cheese dip.

Myth 3. Any food containing mayonnaise is more likely to cause illness.

While all mayonnaise-based salads should be kept on ice, the mayo that you buy at the store is not a food safety villain. It's been pasteurized, and, actually, its high acid content slows bacterial growth. But home-made mayon-

USDA's Meat and Poultry Hotline currently receives some 5,700 consumer calls each month. The national tollfree number is 1-800-535-4555. Washington, D.C. area residents call 447-3333.

naise, which uses raw eggs, is never safe, not even for at-home consumption.

Myth 4. Packing cold food into a cooler is all you need to do to ensure safety when transporting it.

It's not enough to just put foods into the cooler. Packing the food directly from the refrigerator is a good start, but you must also include a cold source.

The commercial "blue jel" is a good choice, but you can also freeze water in containers to use as an ice block. Boxed juices can be frozen to provide an excellent cold source and an icy cold drink at the picnic. Ice cubes, cold fruit, and even frozen food like hamburgers and hotdogs, that will thaw enroute or before grilling, can also be used to keep your food cold.

Myth 5. You don't need to worry about taking carry-out food like fried chicken to a picnic since it's already cooked.

Cooked food also requires special care, especially if the food is warm. Bacteria that can cause illness can be introduced to food just by handling. This bacteria can grow rapidly in warm temperatures.

If the chicken will be served and eaten within 2 hours, it's

okay to pick it up on the way to the outing.

But, if serving will not be for several hours, it's better to purchase the chicken well in advance of the picnic, and chill it thoroughly. Then pack it in the cooler and eat it cold.

Myth 6. Hard-cooked eggs are great to take on a hike because they don't need to be refrigerated.

Even though the shell of an egg does provide some protection for the interior, you shouldn't rely on it.

Hard-cooking the egg will kill any bacteria, such as salmonella, that may be in the raw egg. But,

there are other bacteria that grow well on cooked food. Cracks in the shell, even too small to see, can allow bacteria into the inside of the egg.

Once inside the shell, the bacteria can grow well, and rapidly on the egg's protein surface, and could cause illness. That's the *last* thing you'd want on a hike!

Keep hard-cooked eggs on ice and in a cooler or cold-pack. Carry eggs on a hike only if you'll be eating them within 2 hours of leaving the base camp.

Myth 7. Dirt and pesticides can be removed from fresh vegetables by washing with soap and water.

Soap or detergent should not

be used to wash vegetables and fruits. Very little pesticide residue, if any, actually remains on fruits and vegetables, but what might be there can be effectively washed off with only water and, perhaps, a vegetable brush.

Household detergents have not been approved for use on food items.

Myth 8. Partially cooking meat or poultry ahead is a great way to save time grilling at the cook-out.

It's not a good idea to partially heat food for further cooking at a later time. Bacteria that may be in raw foods need thorough cooking—all at once—to be destroyed. When food is fully cooked, however, and if it's been cooled quickly, *reheating* it on the grill at the picnic site is a safe option.

Also, if you are barbecuing at home in the backyard, precooking or parboiling is a way to save grilling time. Just be sure to pre-cook *immediately* before taking the food to the grill.

Myth 9. As long as leftover food is still partly cold, it's fine to pack it up and take it home.

Use your cooler, and your common sense, as a guide to the safety of leftover picnic food. Ice remaining in the cooler is a good sign that the food may be safe.

If the picnic only lasted 4 to 5 hours, and if the food was not out of the cooler very long during serving, chances are good that the leftover food will be wholesome.

If you have any doubts, though, don't take a chance. Discard the food. A better plan is to pack only what you will use on the outing.

—Susan Templin



Researching Microwave Safety

by Mary Ann Parmley

Believe it or not, microwave cooking has been around for about forty years. In 1945, Dr. Percy Spencer patented a microwave he built from a farmer's milk can. By 1955, Raytheon was introducing the first ovens for domestic use. Today, an estimated 82 percent of American households have microwaves.

But how much do we really know scientifically about how microwaves cook food? Given our present problems with foodborne illness caused by bacteria like salmonella and listeria, this is a real concern.

Nor has recent British research made anyone feel any better. In December 1989, the British Ministry of Agriculture, Fisheries and Food published a report saying that 1 in 3 microwave ovens they tested did not produce a uniform internal food temperature of 70° Centigrade (160° Fahrenheit), the temperature that kills most foodborne pathogens.

What this points to, of course, is the classic problem with microwave ovens—their tendency to leave *cold spots* in food. If you've ever eaten quiche or a sandwich warmed up in the microwave, you know about cold spots. Im-

properly microwaved, your quiche may have been tough, over-cooked and too hot to eat in one area, while still frigid in others.

Uneven cooking that leaves cold spots where bacteria and other foodborne pathogens can survive to cause illness can occur in microwaves for three reasons: 1) the waves bounce around the oven irregularly, 2) microwaves heat food elements like fats, sugars and liquids more quickly than other elements, and 3) microwaved food often needs to continue cooking even after you take it out of the oven. This is called "standing time."

If you rush the process, ignoring the standing time which evens out heating, you can also have unevenly cooked food.

What can be done here? And how safe, relatively speaking, or how ill-at-ease should you feel about your handy microwave?

Dr. Mark Harrison, a University of Georgia food microbiologist currently researching how microwaves kill listeria on chicken, answers, "Microwave cooking is really no different than stove cooking. If you follow the proper time and temperature

Here's to Safe Microwaving

- When you defrost food in the microwave, cook it immediately.
- Debone large pieces of meat before cooking. Bone can shield the meat around it from thorough cooking.
- Cook large pieces of meat at 50% power for longer periods of time. Commercial oven cooking bags also aid even cooking and tenderness.
- Do not cook whole, stuffed poultry in the microwave. Cook bird and stuffing separately.
- Use a meat thermometer or temperature probe to check for doneness. Check in several places, avoiding fat and bone. The internal temperature should reach 160° F for red meat, 180° F for poultry. Fish should flake.
- Arrange smaller items or mixed foods uniformly in a covered dish. Add a bit of liquid. The steam formed inside the dish helps kill any bacteria or other pathogens and ensures even heating. If your cover is plastic, make sure it doesn't touch the food.
- Move food inside a dish several times during cooking. Stir soups and stews. If you don't have a turntable, turn the dish during cooking.
- Mixed foods, casseroles, soups, stews and re-heated carry-out and leftover foods should all be heated to at least 160° F.
- For all foods, observe the standing time given in the recipe, usually about 1/3 of the cooking time. Food completes cooking during the standing time.

rules—meaning that food reaches a high enough temperature and holds that temperature long enough to kill anything that's growing on it, you should have a product that's safe to eat."

Yes, he and his family use a microwave at home. Says Harrison, "I simply bought a temperature probe. To be on the safe side, we cook things quite thoroughly and use the probe in two or three different places to make sure the food reaches a safe temperature."

While Harrison's present research shows that if you add a high concentration of listeria bacteria to the surface of raw chicken some listeria cells will survive in surface cold spots, there aren't usually enough cells left to make a healthy person sick. Harrison notes that raw meats you buy would almost never be so highly contaminated.

Dr. Stephanie Doores, a Pennsylvania State University food microbiologist working on a USDA research grant on how microwaves cook food, says, "Microwave cooking is like any other new technology. You have to know how it works to use it correctly."

Dr. Doores continues, "Basically, people can't expect a microwave to work miracles or to compensate for poor handling or cooking procedures. It's true that microwaves reach high temperatures quickly, but don't forget that those disease-causing microbes in food must be exposed to high heat for a sufficient amount of time for it to kill them."

Doores understands that the average person may not know this or may forget, so how can science help us out?

"Right now," says Doores, "my research is aimed at finding out how the composition of different foods influences the difficulty of killing pathogens in

those foods. For example, we've put set amounts of fats, proteins and carbohydrates—the basic building blocks of food—into water solutions treated with a fixed high count of salmonella. We microwave the solution on high for 47 seconds and evaluate how many salmonella cells are killed.

"From this research, we hope eventually to be able to tailor safe cooking instructions for consumers for specific types of food."

Doores says next she and her group will be looking at actual foods. "We'll be studying foods like beef broth, shelf-stable milk, cheese sauces, puddings and eggs. Each of these foods is distinctively different—in its chemistry, viscosity, density and in the heat treatment and packaging received before consumers take it home."

Another exciting aspect of her work is that Doores will have a food engineer, Dr. R. C. Anantheswaran, working with her. "He's interested in looking at variables like the shape of the cooking container, various coverings for the container, and the primary question of whether microwaves cook or kill pathogens differently than other heat sources."

This may mean we can look forward to a day when our "zappable" food packages will be specifically designed for safe cooking—they'll be the right size, shape and chemically composed so as to guarantee it.

Back to the present, Carl Custer, a USDA microbiologist who advises the Department's Meat and Poultry Hotline staff on how to answer consumer questions on microwave cooking, says, "There's really no mystery to protecting yourself against food-borne illness when you use the microwave. The guidelines we recommend are based on what

we already know about the ovens.

"For example, steam kills pathogens readily, so we recommend adding liquid sometimes and covering food to keep steam inside the dish. We recommend oven cooking bags because studies show they provide more thorough cooking for poultry and large cuts of meat.

"What I'm saying, basically, is just as there are a number of techniques essential to stove-top and oven cooking, there are cooking techniques you can learn for safe and tasty microwave cooking."

Further Reading

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"Endpoint Temperature Distributions in Microwave and Conventionally Cooked Pork"—Bakanowski, Stephen M. and Zoller, Janet M. Major Appliances Business Group, General Electric Co., Louisville, Ky.

Synopsis: Article compares microwave to conventional heating using infrared thermography.

Food Technology, Feb. 1984, 45-51.

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Synopsis: Pathogen destruction was aided by the use of brown-in cooking bags.

Journal of Food Science, Vol. 50, 1985, 873-880.

HACCP

A Science-based Approach to Meat and Poultry Inspection

by Mary Ann Parmley

Dr. Howard Bauman, a pioneer of quality control for the Pillsbury company and now a consultant to USDA's Food Safety and Inspection Service, recalls vividly how the Hazard Analysis and Critical Control Point system of food inspection—or HACCP—was born.

"Back in the '60s, in the early days of the space program, those of us who'd been called in to work with the NASA team were asked what we could do to ensure that the food the astronauts took on board wouldn't go bad or make any of them sick," Bauman says. Clearly, food poisoning was the last thing anyone wanted along on a space flight.

"What we came up with," Bauman continues, "was a rigorous,

step-by-step plan for checking that only wholesome, uncontaminated raw ingredients were used in the astronauts' meals, that those foods were carefully cooked to kill any illness-causing micro-organisms, and so forth. The HACCP approach we created still sets the standard for modern food process control."

If HACCP was the secret weapon for getting safe food on the spaceships, why not use it to move meat and poultry inspection into the future too?

"That's exactly what we're planning," says Dr. Lester Crawford, the veterinarian who heads the Food Safety and Inspection Service. "The HACCP approach—systematic, comprehensive and science-based—is precisely what we need to better monitor meat and poultry pro-

duction, especially as more and more food products are turned out and foodborne illness continues to pose health threats."

What is the HACCP approach to food inspection? "You could say," says Dr. Crawford, "that HACCP represents a formalized kind of troubleshooting. Parents do this all the time. When you put a toddler gate across the top of the stairs, or buy those plastic inserts for electrical outlets, you're taking a HACCP-type approach to protecting your youngster from harm.

"Likewise, in our work with meat and poultry processors over the next few years, we're going to be helping them both examine their food process control systems to see where any trouble spots might lie and draw up systematic plans to 'plug those gaps'

before any consumer products are threatened. The key element in HACCP is *prevention*."

While FSIS staff think it may be a few more years before HACCP plans are developed and in place in all meat and poultry plants, HACCP principles are already being used in a number of settings.

HACCP in action.

Dr. David M. Theno, a food microbiologist and technical consultant to Foster Farms, a California poultry processor, has rave reviews about how HACCP is working there.

"We started working up formal HACCP plans about three years ago, and they are now in place in all our plants that produce ready-to-eat foods like hotdogs, bologna, lunch meat and cooked turkey," he says. "Ready-to-eat items were of special concern to us because consumers often don't give them any further cooking."

How have workers at Foster Farms greeted the new, more systematic controls? "HACCP has been very successful for us with plant production personnel. Everyone involved in framing the plans has a much more personal sense of their own role in turning out safe food products. This is true not only, I think, because these workers helped develop the plans but because they now get concrete feedback on how their part of the process measures up."

"The cream on top," Theno adds, "is that HACCP has also helped our dealings with the inspection staff from FSIS (USDA's Food Safety and Inspection Service that handles meat and poultry inspection). Today our plant managers and the FSIS inspection people are all looking at the same data printouts, so there isn't much room for misunderstanding or discussion as to how well

we're meeting predetermined inspection criteria."

In Baltimore County, Md. a comprehensive HACCP plan is being developed to upgrade restaurant inspection.

Kenneth A. Schmidl, supervisor of Food Control for the Baltimore County health department, reports: "We got into the HACCP business in 1985 when the Maryland State Health Department engaged Dr. Frank Bryan, then just retired from the Centers for Disease Control, as a trainer. We sent a representative for instruction and by January of last year we had three sanitarians developing HACCP plans for the production of 60 menu items in 45 food service establishments."

He continues, "While the program is voluntary, we had much better cooperation than we expected. Only two or three places didn't want to cooperate and we decided they thought we were trying to delve into 'secret' recipes or something."

"We're moving right along with our HACCP program," Schmidl says, "and we hope that

from? "Under legislation we hope is forthcoming," Schmidl explains, "the restaurant could draw up its own plan, hire a qualified consultant to do it or, for the smaller outfits, we'd lend some expertise. Naturally, we'd have to approve the final plan."

Evidently servers of the famous Maryland crabcake are about to graduate to a whole new level of food preparation sophistication.

But Foster Farms and Baltimore County's Food Control unit are hardly alone. HACCP planning is gaining strength in many quarters.

In a recent letter to FSIS Administrator Lester Crawford, a top-level food industry group including the American Meat Institute, the National Broiler Council, the National Food Processors Association and the National Turkey Federation, wrote: "HACCP is a system each association supports as a tool to minimize public health and safety problems (in food production)."

Or as FSIS's Assistant Administrator and HACCP Executive Director Dr. Catherine Adams

"The HACCP approach still sets the standard for modern food process control."

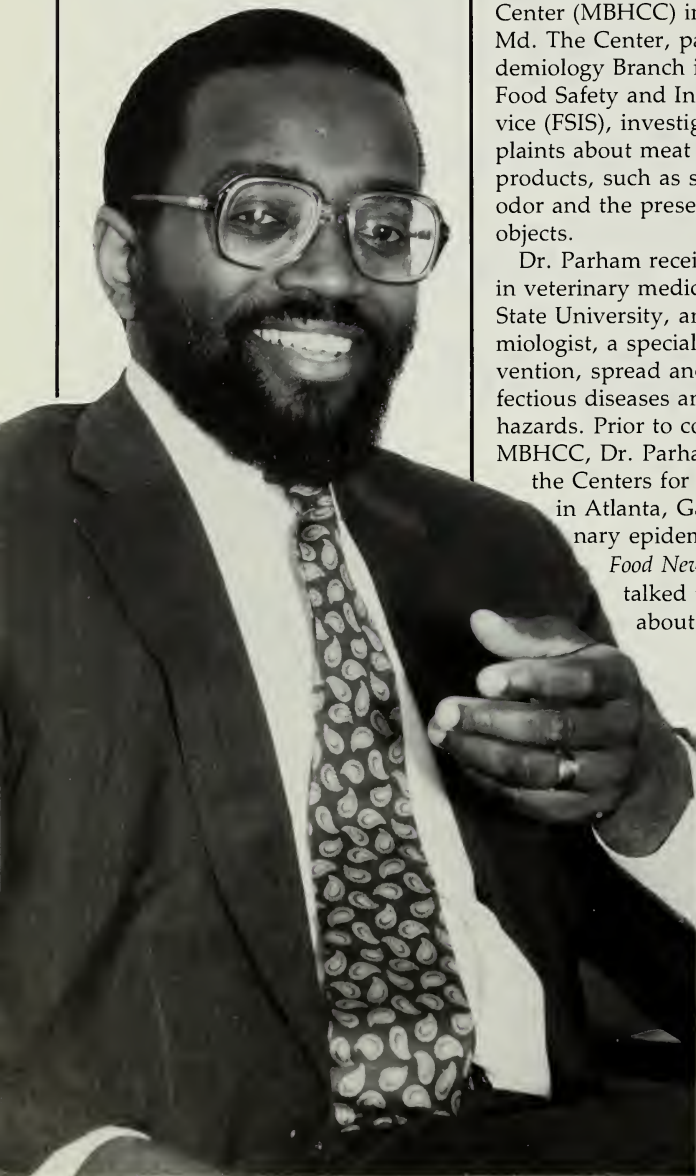
in the near future every restaurant in our jurisdiction will have a HACCP plan in place. This would probably be a big notebook with the plans for each of the menu items they produce, showing the critical control points and how they should be managed—cooling, cooking and serving times and temperatures and other basic matters."

Where will these plans come

puts it, "Our strong move to a new HACCP system of meat and poultry inspection is not in any way a negative reflection on the fine efforts at process control many plants have made over the years. Rather we think going from present systems to HACCP will be like moving from seatbelts to airbags. It's just simply the best way to make meat and poultry products as safe as possible."

What Is Foodborne Illness? How Can It Be Avoided?

AN INTERVIEW WITH Dr. Gregory Parham



Dr. Gregory L. Parham heads the Meatborne Hazard Control Center (MBHCC) in Beltsville, Md. The Center, part of the Epidemiology Branch in USDA's Food Safety and Inspection Service (FSIS), investigates complaints about meat and poultry products, such as strange taste or odor and the presence of foreign objects.

Dr. Parham received his degree in veterinary medicine from Ohio State University, and is an epidemiologist, a specialist in the prevention, spread and control of infectious diseases and other health hazards. Prior to coming to MBHCC, Dr. Parham worked at the Centers for Disease Control in Atlanta, Ga., as a veterinary epidemiologist.

Food News recently talked to Dr. Parham about how

the Center works to protect consumers and how you can protect yourself at home.

Q. Dr. Parham, what are the functions of the Meatborne Hazard Control Center?

A. The Center investigates reports of illness or injury involving meat and poultry products. When a case is first reported, we try to identify the source of the problem. For example, if several persons report illnesses after eating a meat or poultry product, we try to get samples of the product from the consumer and from the retail grocery store.

We also talk to the consumer involved and check with the company to find out how the product was produced. If necessary, the product is recalled by FSIS. A recall means that a product is removed from warehouses and retail grocery stores and returned to the company. Also, consumers are asked to return the product to the store where they bought it.

Q. What do I do if I think I have a suspect product?

A. The first rule of thumb is, *don't use the product*. It is impossible to see, smell or taste foodborne bacteria in foods. Call USDA's Meat and Poultry Hotline, also operated by FSIS. The phone number for the hotline is 1-800-535-4555. In the metropolitan Washington, D.C. area the number is 447-3333. A home economist will take information about your complaint and then call us at MBHCC. We will then get in touch with you. *The product should be kept in the refrigerator, but not used*. It should be wrapped in plastic, and labeled so that no one else will accidentally use it. Health officials may be examining the product later.

Q. Sometimes I read about food *spoilage bacteria* and foodborne *disease bacteria*. What is the difference between the two?

A. *Food spoilage bacteria* are responsible for the *deterioration of food*. Foods are not completely sterile. So bacteria present in, or on the food—if allowed to grow—results in the deterioration, or spoilage, familiar to many of us. This includes milk going sour or lunch meat turning green or slimy. Basic sanitary practices will reduce or retard bacterial growth and consequent spoilage. Most people will not get sick from food spoilage bacteria. My advice, however, is not to eat any food that is spoiled, as some people may have a reaction such as nausea.

Foodborne disease bacteria, on the other hand, *contaminate food*. If these bacteria are present in large enough numbers they may cause someone who eats the contaminated food to become ill. The best way to keep foodborne disease bacteria from multiplying in food is to follow these simple rules: keep hot foods hot, keep cold food cold, and keep all foods and kitchen areas clean.

Q. How sick will I get from eating food that is contaminated?

A. There are many variables here. Your age, general health and how much contaminated food you ate are all factors. The most common symptoms are diarrhea, nausea, vomiting and abdominal pain. Not all symptoms may appear and you may just think you have the flu.

Q. Are some foods more likely to cause foodborne illness than others?

A. Just about any food can become contaminated if handled improperly. However, foods rich in protein, for example, meat, poultry, fish and seafood are fre-

quently involved in foodborne disease outbreaks. Starchy, egg-rich foods and cream-based items also pose an increased risk.

These include potato or pasta salads, cream-based soups and custard or cream pies.

Q. What are some ways foods are commonly mishandled?

A. If you leave perishable foods out of refrigeration for more than two hours at room temperature you are asking for trouble, because many bacteria multiply rapidly at warm temperatures. Another common cause of mishandling involves using the same kitchen utensils or surfaces for preparing *raw and cooked* food without thorough cleaning after preparing the raw food.

Q. Okay, suppose I forget to follow some of the basic food safety rules. Won't heating or reheating foods kill foodborne disease bacteria?

A. Yes, proper reheating will kill foodborne disease bacteria. However, some foodborne disease bacteria produce poisons or toxins that are not destroyed by high cooking temperatures. An example is the foodborne bacteria staphylococcus, called staph ("staff") for short. Staph toxin can develop in cooked foods that sit out at room temperature for periods over two hours.

Q. There are basic storage times to follow when handling foods. How were these developed?

A. Storage times were developed based on product safety and quality. Bacteria are unable to grow at freezer temperatures (0° F or lower). So you can store a steak past the recommended time of one year in the freezer. It may not be as high in quality anymore, but it's safe to eat. Extended freezer storage times

don't normally pose a safety threat, but refrigerator storage times can, if a product is kept too long.

Q. Is the incidence of foodborne illness rising?

A. Yes, the number of reported cases of foodborne illness does appear to be increasing. It is estimated that there are six million cases of foodborne illness each year in the U.S. That's up from about four million cases just a few years ago.

Q. What accounts for the apparent increase?

A. First, there are a growing number of people who are more at-risk for foodborne illness. These include the elderly, pregnant women and young children, and people suffering from chronic illnesses—cancer patients and AIDS victims, for example. They are more likely to get seriously ill from food poisoning.

Also, it is possible that more handling mistakes are being made during food preparation. People are more in a rush today. And there are more latchkey children than ever before who are preparing meals because both parents work. They don't always know how to prepare foods safely.

Q. What's our best defense?

A. Proper handling of foods can go a long way toward preventing outbreaks and slowing the rise in foodborne illness.

—Herb Gantz

Take Dad Out to the Ball Game



by CiCi Williamson

From the first Father's Day 80 years ago, families have taken Dad out to the ball game with a tailgate picnic.

On that day, June 19, 1910, Dad could have watched the Philadelphia Athletics, the eventual 1910 World Series champions, play the Chicago White Sox at their brand new stadium, Comiskey Park.

Although the 1910 Model T Ford had no tailgate, you certainly could have packed a picnic lunch. But, since the first plastic picnic cooler wasn't invented until 1962, your picnic can be a lot safer now.

Even with an ice chest, though, safe picnics depend on good food handling practices. If you don't want Dad to be tagged out at home plate with a case of foodborne illness, plan ahead for food safety.

Planning starts, of course, with your menu. Since most stadium parking lots don't allow grilling, it's best to plan on foods that don't require cooking. For example, you might consider main dish salads, chilled summer soups, raw veggies and dips, and

other frosty foods that would keep Dad and the family cool on a hot June day.

If you're planning on take-out fried chicken for Dad's picnic, use it within 2 hours after picking it up. Or you could buy it ahead of time and refrigerate it at home.

When transporting refrigerated items, use an ice chest large enough to hold both the food and an ample supply of ice or freezer packs. On the way to the stadium, carry the ice chest in

the passenger compartment of the car. It's cooler than the trunk.

Try to plan just the right amount of food so there aren't leftovers. The interior of a car can reach 160° F in a matter of minutes in the summertime, even with the windows partially open. While you're watching the ball game, the ice will be melting and leftovers may not be at a safe temperature.

Some foods should stay at home. Cream pies, cream-filled pastries, ice cream, frozen desserts, cake with cream cheese frosting and mousse generally are not suitable for travel.

For dessert, better choices are fresh fruit, cookies, bar cookies, bundt cakes and other pastries which are safe without refrigeration.

While you're packing food, don't forget other picnic necessities such as moist towelettes, napkins, paper towels, a soapy sponge, serving utensils and bottle openers. Improper handling is a major source of foodborne illness, so practice good hygiene at picnics as well as at home.

The baseball game? The score in that 1910 contest was 4-2; the home team beat the champs. And keep your home team on a winning streak when it comes to food safety.

Make a Pitch for Picnic Safety

- Buy perishable foods last at the store and get them right home to the refrigerator.
- Chill cooked perishable foods thoroughly before packing them in an ice chest.
- Keep plenty of ice or freezer packs in the ice chest so foods will stay at a safe temperature.
- Put the ice chest in the passenger area of the car. It's much cooler than the trunk in the summertime.
- Use a thermos to keep chilled soups or milk cold.
- Since there may not be a water faucet available, use disposable wet wipes to clean your hands before touching food.
- Don't leave foods out in the sun at picnics.
- Put perishable foods back in the ice chest as soon as you finish serving.
- Unpack ice chest as soon as you return home. Refrigerate perishables which have stayed cold; discard if they have become warm.

SUMMER FOOD CARE TIPS

IN THE KITCHEN.....

- Clean preparation is essential
- Wash hands, work area and all utensils before preparing food
- Marinate in the refrigerator
- Don't thaw on the counter

MENU PLANNING.....

- Plan to take only the amounts of food that you'll use
- With proper cooler and ice, most foods are safe for short periods
- Salads with store-bought mayonnaise are safe, if kept cold
- Avoid creamy or custard foods
- If a cooler is not an option, take fruits, vegetables, hard cheese, canned or dried meats or fish, dry cereal, bread, peanut butter, crackers

PACKING IT UP.....

- Start with *cold* food—pack right from the refrigerator
- Always use an insulated cooler
- Include a cold source in the cooler. Use ice, ice packs, frozen water or juice, frozen foods such as hamburgers and ribs, or cold fruit
- Take along disposable washcloths
- Plan to keep hot foods hot with a thermos or insulated dish

ON THE ROAD.....

- Don't put the cooler in the trunk
- Keep the cooler in the shade at the picnic
- Keep the lid on, avoid repeated openings
- Replenish the ice if it begins to melt

HEAT AND EAT.....

- Keep food cold until cooking on the grill
- Cook completely at the picnic site, no partial or precooking ahead
- Cook thoroughly—meat and poultry should not be pink, juices should run clear, and fish should flake with a fork
- Use a fresh plate for serving cooked food
- Be careful that raw meat juices don't touch other food

COME AND GET IT.....

- In hot weather, food should *never* sit out for over an hour
- Serve smaller portions, so food does not stay out of the cooler too long
- Serve food quickly from the cooler, and replace it inside the cooler fast

REPACKING.....

- Leftovers? If there is still ice in the cooler when you get home, and the food didn't sit out at the picnic, the food is okay to save

Other Questions on Summer Food Safety?

If you have questions about summer food safety, call the USDA Meat and Poultry Hotline at 1-800-535-4555.
Hours: Monday-Friday, 10-4, Eastern Time.

News Wires

Checking the Chickens that Produce the Chickens that Lay the Eggs

To control the growing problem of *Salmonella enteritidis* infections from fresh, unbroken shell eggs, USDA's Animal and Plant Health Inspection Service (APHIS) began a mandatory flock testing program in February.

This means that the breeding flocks—the chickens that produce the chickens that lay the eggs—will now be tested to make sure they are free from infection. This is vital since we now know infected hens can pass the salmonella bacteria from their bodies into the eggs they produce.

To stop the geographic spread of *S. enteritidis*, which has been moving from the Northeast into other parts of the country, no breeder-type hatching eggs or chicks will be permitted to move interstate unless they are considered "U.S. Sanitation Monitored" under the National Poultry Improvement Plan (NPIP) or meet the requirements of an equivalent state program.

The testing of the breeding flocks will be done through NPIP, a voluntary federal-state-industry program overseen by APHIS. In a case where eggs are implicated in human *S. enteritidis* infection, APHIS itself will do the necessary tracebacks and testing of the flocks.

Risk of infection from *S. enteritidis* can be minimized through the careful handling of eggs and all egg products. As with any perishable food, consumers should continue the proper storage (refrigerate at 40° F) and thor-

ough cooking (to 160° F) of eggs and egg products to prevent the growth of potentially harmful bacteria.

- Science writers or editors needing more information about this testing program should contact Margaret Webb, APHIS, SE Task Force, 1-301-436-4363.

- Consumers wanting help with egg and egg product handling, call USDA's Meat and Poultry Hotline, 1-800-535-4555.

—Barbara O'Brien

Food Safety Program Targets Pre-Teens

Food safety is not just for adults. In fact, the earlier this topic can be "brought home" to youngsters the better. Since there are more working couples and latchkey kids than ever, it is likely they will be doing the cooking instead of mom or dad—preparing lunches, after-school snacks and even family meals.

With this in mind, ten national trade associations representing the food industry, from producer to retailer, USDA's Food Safety and Inspection Service and the American Academy of Pediatrics produced a food safety education program for students in grades 4 through 6, "Play It Safe: Goals for Food Safety."

"We helped develop this special program because a large number of foodborne illnesses can be traced to improper food handling at home," said Karen Tracey, a home economist on USDA's Meat and Poultry Hotline.

"Therefore, it is vital to teach children food safety at an early age.

"As these children assume increased responsibility at home for preparing meals, they will need

help to prepare food that is safe to eat," said Tracey.

The kit includes a 16-page booklet for teachers containing four lesson plans, additional resources and a combination game and poster that reinforces the food safety message.

The classroom program was distributed earlier this year to 15,000 elementary schools nationwide. Additional copies are available at \$5.00 each from the Food Marketing Institute, Publication Sales Department, 1750 K St., NW, Washington, D.C. 20006. Telephone: 1-202-452-8444.

—Herb Gantz

"Flavorings" In Meat and Poultry To Be Better Defined On Labels

By Spring, 1991, the U.S. Department of Agriculture's Food Safety and Inspection Service (FSIS) will require a more specific listing of certain flavorings on meat and poultry labels.

About two dozen substances such as dried beef stock, vegetable protein, and pork skins will then have to be listed on the label by their common or usual name when used as flavorings in meat and poultry products.

Previously, many substances derived from livestock, poultry, eggs, milk, plants or yeast, significant sources of protein called "proteinaceous materials," could be listed under such general categories as "natural flavorings," "flavors," or "spices."

Although labels for meat and poultry products were already required to list all ingredients, an exception was made for these substances because the Agency felt they were used chiefly for their flavor contribution but did

not make a significant nutritional contribution.

There are also health reasons why these ingredients should be declared by name. "We have learned that some people can have severe allergic reactions to these substances," said Judy Quick, deputy director of FSIS's Standards and Labeling Division. "We know too that some individuals avoid them because of cultural and religious preferences."

"We were also concerned about the trend during the last decade to use these substances as low-cost filler in meat products."

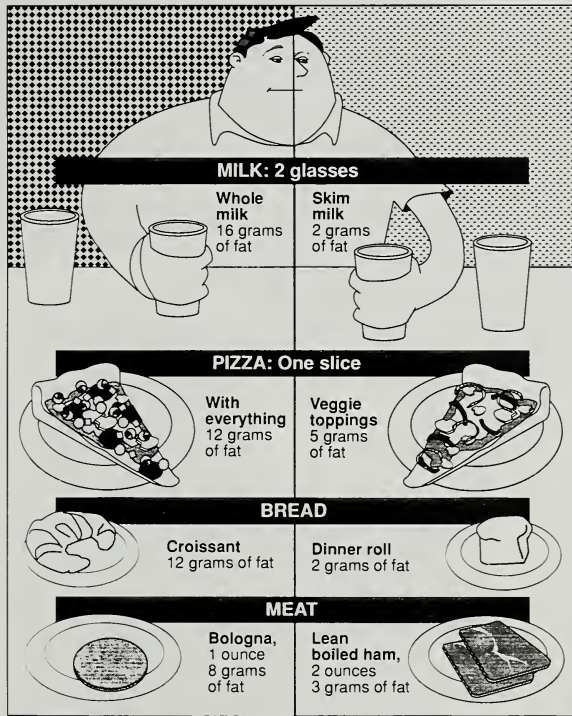
Now individuals with allergies to certain substances can immediately tell if the product contains those ingredients. Consumers will have more information to help them make decisions on the basis of health, dietary and religious preferences.

Contact: Judy Quick, Deputy Director, Standards and Labeling Division, FSIS, 1-202-447-4293.

—Liz Lapping

Lower the Fat

Small Changes Make Big Differences



Tips for a healthy diet

For tips on how you can make other healthy changes in your diet, write for *Preparing Foods and Planning Menus Using the Dietary Guidelines*. Send \$2.50 to Item No. 172-V, Consumer Information Center, Department 70, Pueblo, Colorado 81009.

Enforcement Actions

The Food Safety and Inspection Service investigates violations of federal meat and poultry inspection laws. Products that violate the laws can be seized, detained or recalled in order to protect the public. These include products not labeled clearly and those that have added ingredients that should not be there. Companies that violate the law are subject to criminal, administrative or civil sanctions. Here are some recent enforcement actions taken by FSIS.

PRODUCTS: Ground beef, pork sausage, polish sausage.
COMPANY: West Meat Co., a meat processor in Rock Hill, Mo.
ACTION: Ordered to pay \$95,000 to the state of Missouri for selling more than 325,000 pounds of adulterated meat to about two dozen hospitals, schools and prisons in the state. In addition, the company president and plant manager were each ordered to pay another \$95,000 to the state of Missouri and were sentenced to 24 months and 21 months in prison, respectively.
VIOLATIONS: Adding inedible meat and poultry to various products, using chicken parts in sausage products labeled as "all meat," and hiding of illegal ingredients from federal inspectors.

PRODUCT: Beef.
COMPANY: Hahn and Co., San Francisco, Calif.
ACTION: Firm and president ordered to pay \$30,000 jointly to the U.S. Government.
VIOLATION: Selling 31,000 pounds of beef labeled as "USDA Choice" when, in fact, the beef was ungraded.

PRODUCT: Corned beef briskets.
COMPANY: Liberman Food Products Corp., Detroit, Mich.
ACTION: Firm fined \$10,000 and company president fined \$1,000, placed on 1 year's probation, and ordered to perform 200 hours of community service.
VIOLATION: Selling corned beef briskets with excess added water.

—Herb Gantz

IN THE HOLIDAY ISSUE

A Procrastinator's Guide to a Safe Thanksgiving



Help is on the way for those who wait to the last minute to plan and prepare Thanksgiving dinner. USDA's Meat and Poultry Hotline home economists have cooked up a "life-saving" chart to help you cope with the BIGGEST turkey problems. You'll find out how to safely thaw and cook a turkey when time is running out. The result—a SAFE and delicious holiday meal.

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